



# TEACHING OF THE 21<sup>ST</sup> CENTURY TO THE DEVELOPING COUNTRIES

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Classroom teaching today is indispensable without technological aid- be it hunting a word's meaning quickly on mobile-dictionary or zapping windows/tabs on the desktop learning the lesson or the text being done in the class. For both intensive and extensive study of the subjects, the world library is encapsulated in a folder shaped magic box called a computer. Since the presence cannot be done away with, it's wiser to accept and welcome this technological intellectual reliance and attune the teacher training in such a fashion that abets the classroom learning and education impartment. This paper 'Teaching of the 21st Century to the Third-World Countries' attempts to highlight after learning the significance and importance of e-learning and m-learning and what are the obstacles that teachers are facing regarding it. It sets out to identify the challenges which hinder the teachers and students that are salient for e-learning-enabled-classrooms in the developing countries, specifically in India.

Education remains the father-factor for poverty eradication and hence social amelioration through economic growth and better standard of living in the developing countries. Countries that already suffer shortage of technically adept teachers, the use of Information and Communication Technologies in education is sure shot way to eradicate illiteracy. This desire can be fulfilled when the teachers are imparted technical expertise and dexterity- it is because they are the ones who come in face to face communication/teaching with students and young learners.

In case of online learning programmes that are based cent percent on technical and computer based set-up, there exists some factors that hamper its free and optimum benefit. Cultural barriers and gender may restrict a student in opening up and learning like a free-bird. In countries those are developing or less developed, the issues are a little different than those in the developed nations. The main issues of developing countries like India, Sri Lanka etc are connectivity. This connection is slow even if students opt for going to cafes in their locality. As a result, it affects the attitudes of society- both students and teachers and resultantly, they opt for face to face teaching and doubting the credibility of e-learning. "In our country as well, the rural areas are really, really rural. They don't have IT at all. You'd be surprised. Some of the parts of our country still do not have electricity. So forget about IT... Bad thing is students in rural area cannot access internet because of the connection speed. And sometimes students will not be able to follow the studies because of this. But there are some things that make us fed up. Like sometimes we have to wait more than 20 minutes to download study content "But the thing is everyone who is doing Internet doesn't have the Internet facility. Student who doesn't have Internet facility has to spend lot of money for Internet usage to Internet cafes."(3) The students in Sri Lanka are not very technologically confident and therefore need much technological support. They are neither used to the e-learning culture or learning at a distance which makes many of them expect immediate feed-back as provided in face-to-face classroom teaching. This makes the requirements for interactivity, presence and support extremely important. "...find the major challenges to be Support, Flexibility, Teaching and Learning Activities, Access, academic confidence, Localization and Attitudes."(3)

Researchers have been claiming time and again that the percentage of and satisfaction of the online course opted students is no less than the face-to-face teaching. Rather, a source (<http://www.slideshare.net/Ottamay/comput-technology-to-help-teachers-and-benefit-students>, Page 5) says that students have rated online teaching as a better way and a more convenient one than the face to face teaching method, which we generally call the classroom teaching. "Faculty issues included suitability of their subject for online delivery, isolation from students, and the additional time required to teach online (Shank, 2005). Other faculty concerns included class size (Dibiase, 2004), adequate compensation (Parker, 2003), workload, credit toward promotion and tenure, and technical support (Bower (2002, Rockwell et al, 1999). Faculty may be subject specialists and excellent teachers, but this does not ensure they have good computer technology and online skills. For such teachers technical support and training are additional concerns. As a result older faculty often prefer face-to-face over online teaching (Gerlich, 2005; Myers, Bennet, Brown, & Henderson, 2004). However, with support and training, computer-challenged instructors can be convinced to trans-

form from blackboards to blogs."(2) A source <http://elearnmag.acm.org/featured.cfm?aid=1865476>) says that only 39 percent of the teachers have been able to club teaching with technology, despite having better scholarship in it. Teachers use technology for purposes galore. But this use becomes minimal when it comes to an aid in teaching or classroom assistance. The reason could be the lack of awareness of how it can come handy and be a classroom-helphmate. SEDL, in mid 1990s developed a very comprehensive and 'comes-handy' framework called the 5Js. "The overall approach, sequential and cumulative, is grounded in two basic premises. First, if technology is used as a teaching and learning tool, tied to curricular goals and assessment and embedded within strong instructional techniques, it can promote better instruction and greater student collaboration, enhancing student learning. If not, it can't. Second, professional development can promote quality technology integration and learning by minimizing the importance of computers within professional development and concentrating instead on the core areas of teaching: content, curriculum, instruction, assessment, and classroom management."(1) The first of the 5Js is the 'Job-Related' meaning that the fact is that the onus of making the students feel comfortable is in the teachers. So, the objective is to make the workplace computer-based and remove the deficit of technical-expertise. Moving on to the second pointer of this theory- 'Just Enough' focuses on the fact that whatever is out of the requirement of the classroom curriculum should be struck off. Teachers don't need to know everything and every bit of technology to be classroom adept. They just need to know the basic minimum of the technology they shall be using- both the hardware and the software. "The "just enough" principles says whatever the in-class ratio of learners to computers is, it must be the same in the professional development sessions. The sessions then focus on activities that emphasize collaboration and sharing of resources. Teachers cannot and should not be trained in an environment that is richer with technology than what is in their own schools. This strategy demonstrates to teachers that scarcity of resources can actually breed, rather than impede, collaboration, and that innovation does not always depend on resources (Burns & Dimock, 2007)"(1). The third canon of this theory is 'Just in Time' that, as it calls itself, focuses on the desire to be student specific and rejects wasting time. It aims to reduce the time wasted between teacher's learning a method and her/his implementing it on the student. Along with it, the 'just-in-time' also focuses on tailoring and customising the need of the student and honing the ability of the teacher to be able to differentiate the need of one student from the other and so giving a student what s/he wants. The second last canon is the 'Just-in-Case' that talks about the self-help tips that the teachers should be aware of in case of technical breakdown or in cases where two or three computer systems have to be shared by forty or fifty students. Technical hassles and glitches are a very common thing but the education should enable the teachers well in case they are in a die-hard need of assistance when a temporary disruption is caused. "The central tenet of just-in-case thinking is planning. By deliberately grouping students with varying technical expertise, teachers can delegate computer training to students, thus shifting some instructional responsibility to students. By working with teachers to always have a Plan B, if technology breaks down or the school's one laptop has been double-booked, learning does not grind to a halt. Technology cannot save a poorly planned learning experience. Often, it just exacerbates the weaknesses. In this just-in-case approach, technology coaches help teachers plan and organize instruction in a more careful, detailed, and comprehensive fashion. By thinking through and planning for all contingencies, teachers will always have a plan just in case technology fails."(1) The last canon of this 5Js is 'Just try It'. It's the most important principle of the 5Js mentioned above and it boils down to one fact- that all teaching and all technical education is useless until it is applied and 'tried' in the classroom. The errors and mistakes that teachers will make shall enable them learn the ground realities and prepare them for an impeccable knowledge imparting.

Broadly, the entire process can be enlisted as follows-

1. Teachers require to learn a few software skills
2. Software's (and even hardware's) instructional possibilities and technical issues
3. Induce the teachers to try solving them independently

4. Seek technical-instructor, if required
5. Assist the students

Technological confidence, motivation and commitment, time and new learning style, curriculum design and pedagogical lay-out, rules and regulations, attitudes on e-learning and IT, availability of techno-educational resources, flexibility in the delivery mode et al are the areas that hold prime concern.

To have an updated classroom environment, the teachers first need to be adept at using and operating technical gadgets that the classroom may require. First teachers may only learn a few software skills to help students use the technology. More important is an understanding of the software's instructional possibilities. Teachers are encouraged to find their own solutions to technology issues, through trial and error, seeking help from colleagues, or reading FAQs and help guides. If this fails, only then should the technology instructor intervene and help the teacher. It may take longer, but in the end, teachers will feel more confident once they have solved their own problems. Only then shall they be ready to take the next step—of assisting the students in technology!

“While eLearning has become a norm in the United States, it has just reached adolescence in the Pacific due to academic isolation, struggling economies, and limited technology. However, Internet has arrived, computers are less expensive, and young people have embraced the Net and cell phones. What began with texting and email, quickly spread to YouTube, Twitter, and Facebook. In this region, it is the students who are demanding eLearning. While universities might prefer large lecture classes, correspondence courses, and instructor-led face-to-face classes on exotic islands, economic reality is forcing change. In a time of reduced funding, increasing academic competition, and declining enrolment, eLearning is being considered more and more as the way to increase educational access to low-population islands situated across one third of the Earth's surface. The need is great, and after 40 years of conventional educational approaches, a large percentage of teachers on rural islands remain untrained.” (2)

To clinch the issue, whether the classrooms follow synchronous or asynchronous learning, the fact that technology has sunk in the core of education system (and is spreading) cannot be avoided. With the classrooms breathing the internet and students worshipping ‘Google Guru’, teachers have come to terms with the reality that technology can no longer be ignored or over-looked. “Tablets are appealing to educators and it's easy to see why. They're portable, powerful, connected, colourful, and interactive—and kids think they're cool. Tablets contain cameras for taking pictures of science projects, video players for watching movies, and apps that allow students to look at 3D models. They play music for humanities classes and voice-overs for language learners. And of course, they offer email and the internet so students can communicate with far-flung experts. Tablets are less expensive than computers and students can carry them easily from class to class. They carry infinitely more information than a stack of text books—information that doesn't go out of date—and they weigh a whole lot less.” (4)

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